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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,950	09/14/2000	Arto Leppisaari	442-009779-US(PAR)	9662
7590 Perman & Green 425 Post Road Fairfield, CT 06430-6232			EXAMINER MEW, KEVIN D	
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			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/661,950

Applicant(s)

LEPPISAARI ET AL.

Examiner

Kevin Mew

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-52 and 54-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-28, 34, 42-48, 54 and 55 is/are allowed.
- 6) ☒ Claim(s) 19-22, 29-33, 35-38, 40, 41, 49-52 and 56 is/are rejected.
- 7) ☒ Claim(s) 23 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Final Action

Response to Amendment

1. Applicant's Remarks/Arguments filed on 11/2/2006 have been fully considered. Claims 1-18 have been canceled by applicant. Claims 19-52, 54-56 are currently pending.

Specification

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Claim 53 is missing in the amendment submitted by the applicant. Misnumbered 54-56 claim should be renumbered as claims 53-55, respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 19-22, 29, 31-33, 35-38, 40-41, 49-50, 52, 56 are rejected under 35 U.S.C. 102(e) as being anticipated by Widegren et al. (USP 6,937,566).

Regarding claim 19, Widegren discloses a method for allocating radio resources in a packet-switched data transmission system, in which system a terminal is capable of communicating with a network over a radio interface by using packet transfer mode, wherein the method comprises:

generating a radio resource request for allocating a radio resource to the terminal for packet-switched communication (service node requests a radio access bearer from UTRAN for communication with a mobile radio, col. 2, lines 58-61);

sending the radio resource request from the terminal to the network (sending request for a radio bearer to a UTRAN network, col. 12, lines 1-11), wherein

the radio resource request comprises an express indication on whether the radio resource is requested for a real-time service (the radio bearer request analyzes the type of data to determine whether the radio resource requested is for real time data, col. 11, lines 52-65), and

wherein the radio resource request is implemented by a protocol layer (radio access bearers are mapped to RLC/MAC layer) which defines procedures that enable radio resources to

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be allocated (channel resources are allocated, col. 13, lines 31-43) and divided among multiple users (selection of a radio channel for each particular mobile station, col. 13, lines 31-43).

Regarding claim 20, Widegren discloses a method according to claim 19, wherein said radio resource request is sent in a message comprising a bit pattern for identifying said radio resource request as a radio resource request for packet-switched implementation of a real-time service (channel parameter for type of data for identifying real time service, col. 11, lines 61-65).

Regarding claim 21, Widegren discloses a method according to claim 19, wherein said protocol layer is a radio link control/medium access control layer (RLC/Mac layer, col. 13, lines 31-43).

Regarding claim 22, Widegren discloses a method according to claim 19, wherein sending said radio resource request comprises sending a packet channel request of a general packet radio service system (sending a request for a radio access bearer, col. 2, lines 58-61).

Regarding claim 29, Widegren discloses a method for allocating radio resources in a packet-switched data transmission system, in which system a terminal is capable of communicating with a network over a radio interface by using packet transfer mode, wherein the method comprises:

receiving at the network a radio resource request sent by the terminal for allocating a radio resource to the terminal for packet-switched communication (receiving request for a radio access bearer at UTRAN for allocating channel resource for communication with a mobile radio, col. 2, lines 58-61, col. 12, lines 1-11),

wherein the radio resource request comprises an express indication that the radio resource is requested for a real-time service (the radio bearer request analyzes the type of data to determine whether the radio resource requested is for real time data, col. 11, lines 52-65), wherein the method comprises:

allocating, by a network element, the requested radio resource for packet-switched implementation of a real-time service (allocating by radio access bearer controller channel connection for the real-time service, col. 12, lines 1-11), and

wherein the radio resource request is implemented by a protocol layer (radio access bearers are mapped to RLC/MAC layer) which defines procedures that enable radio resources to be allocated (channel resources are allocated, col. 13, lines 31-43) and divided among multiple users (selection of a radio channel for each particular mobile station, col. 13, lines 31-43).

Regarding claim 31, Widegren discloses a method according to claim 29, wherein as an indication of the radio resource allocation the network sends to the terminal a packet uplink assignment message (sends a bearer access establishment from the radio bearer access controller to the mobile, col. 12, lines 3-11).

Regarding claim 32, Widegren discloses a method according to claim 29, wherein said protocol layer is a radio link control/medium access control layer (RLC/MAC layer, col. 13, lines 31-43).

Regarding claim 33, Widegren discloses a method according to claim 29, wherein the network allocates to the terminal the requested radio resource for the packet-switched implementation of the real-time service in response to receiving said radio resource request, the method being one-phased (allocate radio access bearer for the real time service in response to receiving a radio access bearer request, col. 11, lines 52-67, col. 12, lines 1-11).

Regarding claim 35, Widegren discloses a terminal for communication, wherein the terminal is configured for communication with a network over a radio interface by using packet transfer mode, the terminal comprising:

- a processor for generating a radio resource request for allocating radio resource to the terminal for packet-switched communication (core network generates a radio access bearer request from UTRAN for communication with a mobile radio, col. 2, lines 58-61 and Fig. 1);

- a transmitter for sending the radio resource request from the terminal to the network (GPRS service node for sending radio bearer access request to UTRAN, col. 12, lines 1-11, Fig. 1);

- a protocol layer for defining procedures that enable radio resources to be allocated (radio access bearers are mapped to RLC/MAC layer to allocate channel resources, col. 13, lines 31-43) and divided among multiple users (selection of a radio channel for each particular mobile station,

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col. 13, lines 31-43), the protocol layer being configured to implement said radio resource request (radio bearer request is processed, col. 13, lines 31-43), wherein the terminal is configured to include into the radio resource request an express indication on whether radio resource is requested for a real-time service. (the radio access bearer request includes type of data to indicate whether the request is real time or non-real time, col. 11, lines 52-65)

Regarding claim 36, Widegren discloses a terminal according to claim 35, wherein the terminal is configured to send said radio resource request in a message comprising a bit pattern for identifying said radio resource request as a radio resource request for packet-switched implementation of a real-time service (channel parameter for type of data for identifying real time service, col. 11, lines 61-65).

Regarding claim 37, Widegren discloses a terminal according to claim 35, wherein said protocol layer is a radio link control/medium access control layer (RLC/MAC layer, col. 13, lines 31-43).

Regarding claim 38, Widegren discloses a terminal according to claim 35, wherein said radio resource request comprises a packet channel request of a general packet radio service system (col. 12, lines 42-45).

Regarding claim 40, Widegren discloses a terminal according to claim 35, wherein said terminal is one of the following:

a mobile terminal of a cellular network or a computer terminal that is configured to communicate via a mobile terminal of a cellular network (GPRS service node, Fig. 1).

Regarding claim 41, Widegren discloses a terminal according to claim 35, wherein the real-time service is selected from a group consisting of: transmission of speech, transmission of video image (speech, col. 11, lines 61-65).

Regarding claim 49, Widegren discloses an apparatus (UTRAN, Fig. 1) for allocating radio resources in a packet-switched data transmission system, in which system a terminal (GPRS service node, Fig. 1) is capable of communicating with a network over a radio interface by using packet transfer mode, wherein the apparatus comprises:

a receiver for receiving at the network a radio resource request sent by the terminal for allocating a radio resource to the terminal for packet-switched communication (radio access bearer controller for receiving at the UTRAN the radio bearer access request sent by the service node, col. 12, lines 1-11),

wherein the radio resource request comprises an express indication that the radio resource is requested for a real-time service (the radio bearer request analyzes the type of data to determine whether the radio resource requested is for real time data, col. 11, lines 52-65), wherein the apparatus further comprises:

a control unit for allocating the requested radio resource for packet-switched implementation of a real-time service (allocating by radio access bearer controller channel connection for the real-time service, col. 12, lines 1-11), wherein the radio resource request is

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implemented by a protocol layer (radio access bearers are mapped to RLC/MAC layer) which defines procedures that enable radio resources to be allocated (channel resources are allocated, col. 13, lines 31-43) and divided among multiple users (selection of a radio channel for each particular mobile station, col. 13, lines 31-43).

Regarding claim 50, Widegren discloses an apparatus according to claim 49, wherein said apparatus comprises said protocol layer (RLC/MAC layer, col. 13, lines 31-52) and is configured to identify said radio resource request as a radio resource request for packet-switched implementation of a real-time service (identify radio bearer access request, col. 12, lines 1-11) and to allocate the requested radio resource (selection of appropriate type of radio channel resource, col. 13, lines 31-52).

Regarding claim 52, Widegren discloses an apparatus according to claim 49, wherein the apparatus is configured to send to the terminal a packet uplink assignment message as an indication of the radio resource allocation (sends a bearer access establishment from the radio bearer access controller to the mobile, col. 12, lines 3-11).

Regarding claim 56, Widegren discloses a method for allocating radio resources in a packet-switched data transmission system, in which system a terminal is capable of communicating with a network over a radio interface by using packet transfer mode, wherein the method comprises:

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generating a radio resource request for allocating a radio resource to the terminal for packet-switched communication (service node requests a radio access bearer from UTRAN for communication with a mobile radio, col. 2, lines 58-61);

sending the radio resource request from the terminal to the network (sending request for a radio bearer to a UTRAN network, col. 12, lines 1-11),

wherein the radio resource request comprises an express indication on whether the radio resource is requested for a real-time service (the radio bearer request analyzes the type of data to determine whether the radio resource requested is for real time data, col. 11, lines 52-65), and

wherein the radio resource request is implemented by a protocol layer (radio access bearers are mapped to RLC/MAC layer) which defines procedures that enable radio resources to be allocated (channel resources are allocated, col. 13, lines 31-43) and divided among multiple users (selection of a radio channel for each particular mobile station, col. 13, lines 31-43), the method further comprising:

receiving the radio resource request sent by the terminal at the network (receiving radio bearer access request sent by a service node at a UTRAN, col. 12, lines 1-11); and

allocating, by a network element, the requested radio resource for packet-switched implementation of a real-time service (allocating by radio access bearer controller channel connection for the real-time service, col. 12, lines 1-11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 30, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Widegren in view of Chang (USP 6,532,225) and in further view of Spartz et al. (US Patent 5,878,036).

Regarding claim 30, Widegren discloses all the aspects of claim 29 and 50 above, except fails to disclose said radio resource allocation comprises:

establishing an open ended temporary block flow connection between the terminal and the network;

setting a radio link control mode of said temporary block flow connection as an unacknowledged mode.

However, Chang discloses the radio resource allocation is achieved by establishing a open-ended Temporary Block Flow (TBF) between a mobile unit and the Base Station Subsystem (**establishing an open ended TBF connection between the terminal and the network**, see lines 59-60, col. 3 and lines 6-9, col. 4). Chang also discloses all the aspects of the claimed invention as set forth in the rejection of claim 1 above, except fails to explicitly show an unacknowledged mode of said TBF connection. Spartz discloses a GSM communications network (see Figure 1) in which the acknowledge message for channel request response from the BTS to subscriber unit is optional. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify radio link control mechanism of

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Widegren with the teaching of Chang and Spartz such that there would be no acknowledgement message responding back to the packet channel request made by the mobile unit.

The motivation to do so is to avoid the extra processing within the network when transmitting acknowledgement signal to the mobile unit because the call initiation setup time by the mobile unit would then be reduced.

Allowable Subject Matter

5. Claims 24-28, 34, 42-48, 54-55 are allowed.

Claims 23, 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 23, a method according to claim 22, wherein said packet channel request is:

8 bits long and comprises a bit pattern 01101 for identifying the request as a radio resource request for packet-switched implementation of a real-time service; or

11 bits long and comprises a bit pattern 110101 for identifying the request as a radio resource request for packet-switched implementation of a real-time service.

In claim 24, a method for allocating radio resources in a packet-switched data transmission system in two phases, in which system a terminal is capable of communicating with a network over a radio interface by using packet transfer mode, wherein the method comprises:

generating and sending from the terminal to the network a first radio resource request for allocating a radio resource for transmission of a second radio resource request;

generating and sending from the terminal to the network, after the network allocates the requested radio resource, the second radio resource request for allocating a radio resource to the terminal for packet-switched communication.

In claim 34, a method for allocating radio resources in a packet-switched data transmission system in two phases, in which system a terminal is capable of communicating with a network over a radio interface by using packet transfer mode, wherein the method comprises:

receiving at the network a first radio resource request sent by the terminal for allocating radio resource for transmission of a second radio resource request;

allocating, by a network element, the requested radio resource to the terminal;

receiving subsequently at the network the second radio resource request sent by the terminal for allocating radio resource to the terminal for packet-switched communication,

wherein the second radio resource request comprises an express indication that radio resource is requested for a real-time service.

In claim 39, a terminal according to claim 38, wherein said packet channel request is:

8 bits long and comprises a bit pattern 01101 for identifying the request as a radio resource request for packet-switched implementation of a real-time service; or

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11 bits long and comprises a bit pattern 110101 for identifying the request as a radio resource request for packet-switched implementation of a real-time service.

In claim 42, a terminal for communication, wherein the terminal is configured for communication with a network over a radio interface by using packet transfer mode, the terminal comprising:

a processor and transmitter for generating and sending from the terminal to the network a first radio resource request for allocating radio resource for transmission of a second radio resource request,

wherein the processor and transmitter are configured to generate and send from the terminal to the network, after the network allocates the requested radio resource, the second radio resource request for allocating radio resource to the terminal for packet-switched communication.

In claim 54, an apparatus for allocating radio resources in a packet-switched data transmission system in two phases, in which system a terminal is capable of communicating with a network over a radio interface by using packet transfer mode, wherein the apparatus comprises:

a receiver for receiving at the network a first radio resource request sent by the terminal for allocating radio resource for transmission of a second radio resource request;

a control unit for allocating the requested radio resource to the terminal, wherein the apparatus is configured to subsequently receive at the network the second radio resource request

sent by the terminal for allocating radio resource to the terminal for packet-switched communication, wherein the second radio resource request comprises an express indication that radio resource is requested for a real-time service.

Response to Arguments

6. Applicant's arguments with respect to claims 19-22, 29-33, 35-38, 40-41, 49-52, 56 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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